

REMARKS

This timely responds the Office Communication mailed on April 21, 2004. Based upon the following arguments, Applicants respectfully request withdrawal of the Restriction and Election Requirement.

Patentable Subject Matter

In the Office Communication, the Examiner stated “an assembly line cannot be patented because it is comprised of multiple independent apparatus that are each patentably distinct”. On this assumption, the Examiner asserted that claims 1 should be amended to read exclusively on a single invention. This assertion is respectfully traversed.

According to 35 U.S.C. §101, “whoever invents or discovers any new and useful process, *machine*, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent thereof ...”. Also, the Supreme Court has held, Congress chose the expansive language of 35 U.S.C. §101 so as to include “anything under the sun that is made by man.” *Diamond v. Chakrabarty*, 447 U.S. 303, 308-09, 206 USPQ 193, 197 (1980).

The claimed invention is directed to an apparatus (i.e., “in-line system”) for manufacturing a liquid crystal display and, hence, according to the extremely expansive language of the current patent law, the claimed in-line system qualifies as the “machine” under 35 U.S.C. §101. Also, the current patent law does not exclude the “in-line system” from patentable subject matters. Thus, it is submitted that claim 1 complies with the requirements under 35 U.S.C. §101.

Restriction Requirement

In the Restriction/Election Requirement mailed on December 15, 2003, the Examiner asserted that the present application includes 11 inventions that are independent and distinctive from each other. This assertion is respectfully traversed.

It is submitted that the Restriction Requirement has been erroneously made based on incorrect understanding of what constitutes independent and distinct inventions. As MPEP 803 indicates, there are two criteria for a proper requirement for restriction between patentably distinct inventions:

“(A) The inventions must be *independent* (see MPEP § 802.01 § 806.04, § 808.01) or *distinct* as claimed (see MPEP § 806.05 - § 806.05(i)); **and**

(B) There must be a serious burden on the examiner if restriction is required (see MPEP § 803.02 § 806.04(a) - § 806.04(i), § 808.01(a), and § 808.02).”

Regarding the meaning of “independent” and “distinct”, MPEP 802.01 indicates:

“INDEPENDENT

The term "independent" (i.e., not dependent) means that there is no disclosed relationship between the two or more subjects disclosed, that is, *they are unconnected in design, operation, or effect*, for example: (1) species under a genus which species are not usable together as disclosed; or (2) process and apparatus incapable of being used in practicing the process.

DISTINCT

The term "distinct" means that two or more subjects as disclosed are related, for example, as combination and part (subcombination) thereof, process and apparatus for its practice, process and product made, etc., but are capable of separate manufacture, use, or sale as claimed, **AND ARE PATENTABLE (novel and unobvious) OVER EACH OTHER (though they may each be unpatentable because of the prior art)**. It will be noted that

in this definition the term related is used as an alternative for dependent in referring to subjects other than independent subjects.”

As MPEP 806.04(e) states, “claims are definitions of inventions”. The invention defined in independent claim 1 is directed to an apparatus (i.e., in-line system, not in-line conveyer) for manufacturing liquid crystal displays, which comprises three elements: a sealant-applying unit, a liquid crystal depositing unit and a substrate-attaching unit. Although the Examiner may believe each element is old and known, the invention defined in claim 1 is not *per se* a simple combination of these elements. Rather, the invention defined in claim 1 is characterized by how these elements are interrelated and how the interrelations of the elements as a whole achieve the desired goal.

Claim 1 defines that (a) the liquid crystal depositing unit deposits liquid crystal material on the substrate where the sealant is deposited by the sealant-applying unit, and (b) the substrate-attaching unit conjoins the substrate with the sealant and liquid crystal material thereon with another substrate.

As described in the specification, according to the invention defined in claim 1, since the liquid crystal material is deposited on a substrate *before* being conjoined with another substrate, the manufacturing time is reduced compared to the conventional liquid crystal injection scheme where liquid crystal is injected into an injection hole after two substrates are conjoined.

Claims 2-20 and 56 are dependent from claim 1. Since each dependent claim incorporates all the limitations of claim 1, the inventions defined in claims 2-20 and 56 would not be “*unconnected in design, operation, or effect*” with the invention defined in claim 1, and hence the inventions defined in claims 2-20 cannot be “independent” from claim 1. Also, the Examiner has not established that the invention defined in claim 1 is patentable over any of the inventions

defined in claims 2-20 and 56. Thus, the inventions defined in claims 2-20 and 56 cannot be “distinct” from claim 1.

Accordingly, it is respectfully submitted that the inventions defined in claims 1-20 and 56 are not independent and distinct from each other, and hence it is not proper to impose restriction on these inventions.

For the same reason, it would not be proper to impose restriction among the invention defined in independent claim 21 and the inventions defined in its dependent claims 22 and 23. Also, it would not be proper to impose restriction among the invention defined in independent claim 24 and the inventions defined in its dependent claims 25-32.

Regarding the Restriction between the invention defined in claim 1 and the invention defined in claim 21, independent claim 1 recites “a liquid crystal depositing unit for depositing liquid crystal material on the substrate where the sealant is deposited”. Independent claim 21 recites “A liquid crystal depositing unit ... comprising a depositor for depositing liquid crystal material in liquid crystal cell of one of two substrate of a mother glass”.

Since both inventions define a unit for depositing liquid crystal unit on a substrate, the invention defined in claim 21 is not “*unconnected in design, operation, or effect*” with the invention defined in claim 1. Also, the Examiner has not established that the invention defined in claim 21 is patentable over the invention defined in claim 1. Thus, the inventions defined in claim 1 and claim 21 are not independent and distinct from each other. For this reason, it is submitted that the restriction between the inventions defined in claim 1 and claim 21 is not proper.

With respect to the Restriction between the invention defined in claim 1 and the invention defined in claim 24, independent claim 24 recites “A substrate attaching unit ... attaching, in a

vacuum state, two substrates of a mother glass having at least one liquid crystal cell region”.

Independent claim 1 recites “a substrate-attaching unit receiving the two substrates (of which one having liquid crystal deposited thereon) ... conjoining the substrates in a vacuum state”.

Since both inventions defined in claims 1 and 24 defines a unit for attaching two substrates in a vacuum state, the invention defined in claim 24 is not “*unconnected in design, operation, or effect*” from the invention defined in claim 1. Also, the Examiner has not established that the invention defined in claim 24 is patentable over the invention defined in claim 1. Thus, the inventions defined in claim 1 and claim 24 are not independent and distinct from each other. For this reason, it is submitted that the restriction between the inventions defined in claim 1 and claim 24 is not proper.

As explained so far, none of the inventions defined in claims 1-32 and 56 are independent and distinct from each other. Thus, withdrawal of the Restriction Requirement is respectfully requested.

Election Requirement

In the Restriction/Election Requirement, the Examiner stated that Invention II contains two species, Invention VI contains two species and Invention X contains two species. As previously mentioned, it is submitted that the inventions defined in claims 1-32 and 56 are not independent and distinct from each other. The election requirement has been imposed based on the inappropriate restriction requirement. Thus, reconsideration and withdrawal of the election requirement is respectfully traversed.

As a separate issue, the Examiner took the position that there is no generic claims. This assertion is respectfully disagreed with.

As MPEP 806.04(e) indicates, “a claim may include two or more of the disclosures embodied within the breadth and scope of definition (and thus be designated a *generic* or genus claims)”. Also, MPEP 806.04(d) recites “In general, a generic claim should include no material element additional to those recited in the species claims, and must comprehend within its confines the organization covered in each of the species” and “the generic claim cannot include limitations not present in each of the added claims”.

In this regard, it is submitted that claim 1 meets the requirement set by the MPEP to be a generic claim. Thus, withdrawal of the Examiner’s position that there is no generic claim is respectfully requested.

Provisional Election

As previously mentioned, it is believed that the Restriction Requirement has been erroneously made based on incorrect understanding of what constitutes independent and distinct inventions. Thus, it is not possible for Applicants to elect a single invention from the 11 inventions defined by the Examiner. However, to comply with the rules, Applicants provisionally elect Invention IX drawn to an in-line conveying unit because Invention IX appears to be the closest to the invention defined in claim 1.

Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact the Applicants’ undersigned representative at the number below to expedite prosecution.

Prompt and favorable consideration of this Reply is respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Hae-Chan Park', written in a cursive style.

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